

Reference Code of Virginia

§ 19 VAC 30-70-160

Sections 46.2-1019, 46.2-1020, 46.2-1021,
46.2-1022, 46.2-1023, 46.2-1024, 46.2-1025,
46.2-1026, 46.2-1027, 46.2-1028, 46.2-1029,
46.2-1029.1, 46.2-1030 and 46.2-1090.1

Auxiliary Lamps -
Backup-Cornering
Driving-Fog-Spot
and Warning

A. Auxiliary lamps on a vehicle consist of seven general types:

Backup lamps, cornering lamps, driving lamps, fog lamps with an amber or clear lens, spot lamps and warning lamps, and daytime running lamps.

B. School buses may be equipped with an eight-lamp warning system of two red and two amber warning lamps of an approved type on the front and rear of such vehicle.

1. School buses may also be equipped with roof mounted flashing white or amber warning lamps of an approved type.

2. In addition to required warning lamps, school buses may be equipped with a stop signal arm consisting of an octagonal sign which meets FMVSS specifications (Federal Motor Vehicle Safety Standards, 49 CFR 571 et seq.) The stop signal arm shall be reflectorized or be equipped with two red warning lamps of an approved type.

C. There is no limit on the number of backup lamps that a vehicle may have so long as they are of an approved type.

D. No more than four lamps, including two headlamps may be lighted at any time to provide general illumination ahead of the vehicle.

E. Approved type blue or blue and red lights are permitted on any law enforcement vehicle. Approved type red warning lights or red and white lights showing to the front are permitted on fire department vehicles, including publicly owned state forest warden vehicles, ambulances, any rescue vehicle used for emergency calls, animal warden vehicles, school buses and vehicles used by security personnel at the Newport News Shipbuilding

and Drydock Company, Bassett-Walker, Incorporated, or the Tultex Corporation. No more than two flashing or steady-burning red lights or red and white combination lights of an approved type may be installed on one vehicle owned by any member of a fire company, volunteer fire company or volunteer rescue squad.

F. Vehicles mentioned in subsection E of this section permitted to be equipped with flashing, blinking or alternating red, red and white, blue, or blue and red emergency lights (except vehicles owned by any member of a fire company, volunteer fire company, volunteer rescue squad or any ambulance driver employed by a privately owned ambulance service) may be equipped with the means to flash their headlamps when their emergency warning lamps are activated provided:

1. The headlamps are wired to allow either the upper beam or lower beam to flash but not both and;
2. The headlamp system includes a switch or device which prevents flashing of headlamps when headlamps are required to be lighted pursuant to current statute.

G. Any fire vehicle used exclusively for fire fighting, any ambulance or rescue or lifesaving vehicle used for the principal purpose of emergency relief or any wrecker used for the principal purpose of towing disabled vehicles may be equipped with clear auxiliary lamps which shall be used exclusively for lighting emergency scenes. Such lamps shall be of a type permitted by the Superintendent. Any government-owned police vehicle may be equipped with clear auxiliary lamps of a type approved by the Superintendent.

H. Approved type amber flashing, blinking or alternating lights are permitted on vehicles used for the principal purpose of towing or servicing disabled vehicles or in constructing, maintaining and repairing highways or utilities on or along public highways and vehicles used for the principal purpose of removing hazardous or polluting substances from the state waters or drainage areas on or along public highways. Such lamps are permitted on

vehicles used for servicing automatic teller machines, refuse collection vehicles, hi-rail vehicles and on vehicles used for towing or escorting over-dimensional materials, equipment, boats, or manufactured housing units by authority of highway hauling permit.

1. Approved type amber flashing, blinking or alternating lights are permitted on fire apparatus, ambulances, and rescue and life-saving vehicles, provided the amber lights are ~~mounted or installed on the rear of the vehicles.~~ used in addition to flashing red or red and white warning lights and are so mounted or installed so as to be visible from behind the vehicle.

2. Approved type amber flashing, blinking or alternating lights are permitted on vehicles owned and used by businesses providing security services and vehicles used to collect and deliver the United States mail, vehicles used by law enforcement personnel in the enforcement of laws governing motor vehicle parking, government owned law enforcement vehicles provided the lights are used for giving directional warning, ~~and~~ vehicles used to provide escort for funeral processions, and vehicles used by municipal safety officers in the performance of their official duties.

3. Approved type amber flashing, blinking or alternating lights are permitted on vehicles used as pace cars, security vehicles, or fire-fighting vehicles by any speedway or motor vehicle race track.

~~3.~~ 4. An approved type amber flashing, blinking or alternating light may be mounted on the rear of any vehicle used to transport petroleum products. The light must be wired through the reverse gear circuit and activate in conjunction with the back-up lights and audible alarm.

I. INSPECT FOR AND REJECT IF:

1. Vehicle has an auxiliary lamp being used for a purpose other than for which it was approved;

EXCEPTION: Any lighting device which is both covered and not illuminated, other than lamps required, shall not be considered for inspection. Fog and driving lamps mounted below the level of the regular headlamps must be checked for aim as outlined in subdivisions I 10 i and 11 g of this section if not covered.

2. A vehicle has installed on it a warning lamp that is not of an approved type or has been altered.

Reject if the vehicle has wire, unapproved plastic covers, any other materials which are not original equipment or any colored material placed on or in front of any auxiliary lamps: backup, cornering, driving, fog, spot, or warning lamps.

3. Vehicle is equipped with a combination of auxiliary lamps which include more than two fog lamps, or more than two spot lamps, or more than two driving lamps. Reject a vehicle equipped with a headlamp mounted or used as an auxiliary lamp.

NOTE: Vehicles equipped, from the factory, with two driving lamps should not be rejected.

4. Vehicle is equipped with an auxiliary lamp that does not function properly. (If an auxiliary lamp has been modified by removing the wiring, bulb and socket, the unit will be considered an ornament and not a lamp and will not be considered in inspection.)
5. Vehicle is equipped with a lighted advertising sign. Except commercial motor vehicles, buses operated as public carriers, taxicabs, and privately-owned passenger cars used for home delivery of commercially prepared food. Commercial motor vehicles, buses operated as public carriers, and taxicabs may be equipped with vacant and destination signs and one steady burning white light for illumination of external advertising. Privately-owned passenger cars used for home delivery of commercially prepared food may be equipped with one steady burning white light for

the nighttime illumination of a sign identifying the business delivering the food. Do not reject approved identification lights.

6. Any lamp is not of an approved type or if lamps to be burned together as a pair do not emit the same color light.
7. The lens has a piece broken from it. The lens may have one or more cracks provided an off-color light does not project through the crack or cracks.
8. Backup lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Lamps are not of an approved type or a lamp has been altered;
 - b. Wiring or electrical connections are defective;
 - c. The lens has a piece broken from it. The lens may have one or more cracks provided in off-color light does not project through the crack or cracks;
 - d. Lens is other than clear;
 - e. Lamps are not wired into the reverse gear or an independent circuit;
9. Cornering lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Lamps are not of an approved type or a lamp has been altered;
- b. Wiring or electrical connections are defective;
- c. The lens has a piece broken from it. The lens may have one or more cracks provided an off-color light does not project through the crack or cracks;
- d. The color of the light is other than clear or amber;
- e. The lamps do not burn in conjunction with the turn signals;

10. Driving lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Driving lamps are installed on vehicles equipped with the four headlamp system, except the "F" type headlamp system;
- b. A vehicle is equipped with more than two driving lamps;
- c. Driving lamps are not of an approved type or have been altered;
- d. The color of the lamp is other than white;
- e. The lens has a piece broken from it or is rotated away from its proper position.
The lens may have one or more cracks provided an off-color light does not project through the crack or crack;
- f. Wiring or electrical connections are defective;
- g. Any driving lamp is mounted above the level of the regular headlamps, or is not mounted firmly to prevent excessive vibration;
- h. Driving lamps are not wired so that they will burn only when the high beams of the regular headlamps are activated;
- i. Driving lamps are not aimed so that the center of the hot spot drops three inches in 25 feet so that the hot spot is directly ahead of the lamp;
NOTE: Driving lamps must be aimed using the optical headlight aimer.
- j. A tolerance of four inches in 25 feet is allowed in both the horizontal and the vertical adjustment.

11. Fog lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. A vehicle is equipped with more than two fog lamps;

- b. Lamps are not of an approved type or a lamp has been altered;
- c. The lens is other than clear or amber. Fog lamps may have black-end bulbs or small metal caps over the end of the bulb;
- d. The lens has a piece broken from it or is rotated away from its proper position. The lens may have one or more cracks provided an off-color light does not project through the crack or cracks;
- e. Wiring or electrical connections are defective;
- f. Any fog lamp is mounted above the level of the regular headlamps, or is not mounted firmly;
- g. Lamps are not wired and aimed according to the following instructions:
 - (1) Fog lamps are general illumination lamps as covered in subsection D of this section. They must burn through the tail light circuit even if on a separate switch. If installed on a vehicle with a four-headlamp system, or a vehicle equipped with driving lamps, they must be wired into the low beam circuit.
 - (2) Fog lamps must be aimed so that the top edge of the high intensity zone is set at the horizontal centerline and the left edge of the high intensity zone is set at the vertical centerline. (Same as low beam headlights.)
NOTE: Fog lamps must be aimed using the optical headlight aimer.
 - (3) A tolerance of four inches in 25 feet is allowed in both the horizontal and the vertical adjustment.

12. Spot Lamp-Spot lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Vehicle is equipped with more than two spot lamps;
- b. Lamps are not of an approved type or a lamp has been altered;

- c. The lens in any spot lamp is other than clear;
 - d. The lens has a piece broken from it or is rotated away from its proper position.
The lens may have one or more cracks provided an off-color light does not project through the crack or cracks;
 - e. Wiring or electrical connections are defective;
13. Daytime Running Lamps (DRLs) are not required. However, if installed they must operate and be inspected. DRLs must be installed in pairs.

NOTE: DRLs may or may not be wired into the tail light circuit.

INSPECT FOR AND REJECT IF:

- a. Any lamp, except headlamps, used as DRLs is not marked "DRL;"
- b. Fog lamps or parking lamps are used as DRLs;
- c. More than one pair of lamps are used and or designated as DRLs;
- d. A DRL is mounted higher than 34 inches measured to the center of the lamp;
- e. The color is other than white to amber;
- f. DRLs do not deactivate when the headlamps are in any "on" position.

Any DRL optically combined with a turn signal or hazard lamp must deactivate when the turn signal or hazard lamp is activated and then reactivate when the turn signal or hazard lamp deactivates.

Sections 46.2-1019, 46.2-1020, 46.2-1021,
46.2-1022, 46.2-1023, 46.2-1024, 46.2-1025,
46.2-1026, 46.2-1027, 46.2-1028, 46.2-1029,
46.2-1030 and 46.2-1090.1

Auxiliary Lamps -
backup - cornering-
driving - fog - spot
and warning

A. Auxiliary lamps on a vehicle consist of seven general types: backup lamps, cornering lamps, driving lamps, fog lamps with an amber or clear lens, spot lamps, warning lamps and daytime running lamps (DRLs).

1. School buses may be equipped with an eight lamp warning system of two red and two amber warning lamps of an approved type on the front and rear of such vehicle.
 - a. In addition to required warning lamps, school buses may be equipped with a stop signal arm consisting of an octagonal sign which meets FMVSS specifications (Federal Motor Vehicle Safety Standards). The stop signal arm shall be reflectorized or be equipped with two red warning lamps of an approved type.
 - b. School buses may also be equipped with roof mounted flashing white or amber warning lamps of an approved type.
2. Reject if the vehicle has wire, unapproved plastic covers, any other materials which are not original equipment or any colored material placed on or in front of any auxiliary lamps-backup, cornering, driving, fog, spot or warning lamps.

EXCEPTION: Any lighting device which is both covered and not illuminated, other than lamps required or permitted by this manual, shall not be considered for inspection. Fog and driving lamps mounted below the level of the regular headlights must be checked for aim as outlined in paragraphs K9 and L7a of this section.

B. There is no limit on the number of backup lamps that a vehicle may have so long as they are of an approved type.

- C. No more than four lamps, including two headlamps may be lighted at any time to provide general illumination ahead of the vehicle.
- D. Approved type blue or blue and red lights are permitted on Department of Corrections vehicles designated by the Director of the Department of Corrections and any law-enforcement vehicle. Approved type red warning lights or red and white lights are permitted on fire department vehicles, including publicly owned state forest warden vehicles, ambulances, any rescue vehicle used for emergency calls, vehicles of the Department of Emergency Services, animal warden vehicles, and vehicles used by security personnel at the Newport News Shipbuilding and Drydock Company, Bassett-Walker, Incorporated, or the Tultex Corporation. No more than two flashing or steady-burning red or combination red and white lights of an approved type may be installed on one vehicle owned by any member of a fire company, volunteer fire company, volunteer rescue squad or any ambulance driver employed by a privately owned ambulance service
- E. Vehicles mentioned in subsection D permitted to be equipped with flashing, blinking or alternating red, red and white, blue, or blue and red emergency lights (except vehicles owned by any member of a fire company, volunteer fire company, volunteer rescue squad or an ambulance driver employed by a privately owned ambulance service) may be equipped with the means to flash their headlamps when their emergency warning lamps are activated provided:
 - 1. The headlamps are wired to allow either the upper beam or lower beam to flash but not both and;
 - 2. The headlamp system includes a sensor which prevents flashing of headlamps when headlamps are required to be lighted pursuant to current statute.
- F. Any fire vehicle used exclusively for fire fighting, any ambulance or rescue or lifesaving vehicle used for the principal purpose of emergency relief or any wrecker used for the

principal purpose of towing disabled vehicles may be equipped with clear auxiliary lamps which shall be used exclusively for lighting emergency scenes. Such lamps shall be of a type permitted by the Superintendent. Any government owned police vehicle may be equipped with clear auxiliary lamps of a type approved by the Superintendent.

- G. Approved type amber flashing, blinking or alternating lights are permitted on vehicles used for the principal purpose of towing or servicing disabled vehicles or in constructing, maintaining and repairing highways or utilities on or along public highways and vehicles used for the principal purpose of removing hazardous or polluting substances from the State waters or drainage areas on or along public highways. Such lamps are permitted on vehicles used for servicing automatic teller machines, refuse collection vehicles, hi-rail vehicles and on vehicles used for towing or escorting over-dimensional materials, equipment, boats, or manufactured housing units by authority of highway hauling permit.
1. Approved type amber flashing, blinking or alternating lights are permitted on fire apparatus, ambulances, and rescue and life-saving vehicles, provided the amber lights are ~~mounted or installed on the rear of the vehicles.~~ used in addition to flashing red or red and white warning lights and are so mounted or installed so as to be visible from behind the vehicle.
 2. Approved type amber flashing, blinking or alternating lights are permitted on vehicles owned and used by businesses providing security services and vehicles used to collect and deliver the United States mail, vehicles used by law enforcement personnel in the enforcement of laws governing motor vehicle parking, government owned law enforcement vehicles provided the lights are used for giving directional warning and vehicles used by municipal safety officers in the performance of their official duties.

3. Approved type amber flashing, blinking or alternating lights are permitted on vehicles used as pace cars, security vehicles, or fire-fighting vehicles by any speedway or motor vehicle race track.

3 4. An approved type amber flashing, blinking or alternating light may be mounted on the rear of any vehicle used to transport petroleum products. The light must be wired through the reverse gear circuit and activate in conjunction with the backup lights and audible alarm.

H. INSPECT FOR AND REJECT IF:

1. Vehicle has an auxiliary lamp being used for a purpose other than for which it was approved.

Do not reject tractor trucks equipped with cargo lights of an approved type which are mounted on the rear of the tractor cab and wired through an independent switch used to illuminate brake connectors and fifth-wheels for nighttime hookups.

2. A vehicle has installed on it a warning lamp that is not of an approved type or has been altered.

3. Vehicle is equipped with a combination of auxiliary lamps which include more than two fog lamps, or more than two spot lamps, or more than two driving lamps. Reject a vehicle equipped with a headlamp mounted or used as an auxiliary lamp.

NOTE: Vehicles equipped from the factory, with two driving lamps should not be rejected

4. Vehicle is equipped with an auxiliary lamp that does not function properly. (If an auxiliary lamp has been modified by removing the wiring, bulb and socket, the unit will be considered an ornament and not a lamp and will not be considered in inspection.)

5. Vehicle is equipped with a lighted advertising sign. Except commercial motor vehicles, and buses operated as public carriers. These vehicles may be equipped

with vacant and destination signs and one steady burning white light for illumination of external advertising. Do not reject approved identification lights.

6. Any lamp is not of an approved type or if lamps to be burned together as a pair do not emit the same color light.
7. The lens has a piece broken from it. The lens may have one or more cracks provided an off-color light does not project through the crack or cracks.
8. Backup lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Lamps are not of an approved type or a lamp has been altered.
 - b. Wiring or electrical connections are defective.
 - c. The lens has a piece broken from it. The lens may have one or more cracks provided an off-color light does not project through the crack or cracks.
 - d. Lens is other than clear.
 - e. Lamps are not wired into the reverse gear or an independent circuit.
9. Cornering lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Lamps are not of an approved type or a lamp has been altered.
- b. Wiring or electrical connections are defective.
- c. The lens has a piece broken from it. The lens may have one or more cracks provided an off-color light does not project through the crack or cracks.
- d. The color of the light is other than clear or amber.
- e. The lamps do not burn in conjunction with the turn signals.

10. Driving lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Driving lamps are installed on vehicles equipped with the four headlamp system, except the "F" type headlamp system.
- b. A vehicle is equipped with more than two driving lamps.
- c. Driving lamps are not of an approved type or have been altered.
- d. The color of the lamp is other than white.
- e. The lens has a piece broken from it or is rotated away from its proper position.
The lens may have one or more cracks provided an off-color light does not project through the crack or cracks.
- f. Wiring or electrical connections are defective.
- g. Any driving lamp is mounted above the level of the regular headlamps, or is not mounted firmly to prevent excessive vibration.
- h. Driving lamps are not wired so that they will burn only when the high beams of the regular headlamps are activated.
- i. Driving lamps are not aimed so that the center of the hot spot drops three inches in 25 feet so that the hot spot is directly ahead of the lamp.

NOTE: Driving lamps must be aimed using the optical headlight aimer.

- j. A tolerance of four inches in 25 feet is allowed in both the horizontal and the vertical adjustment.

11. Fog lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. A vehicle is equipped with more than two fog lamps.

- b. Lamps are not of an approved type or a lamp has been altered.
 - c. The lens is other than clear or amber. (Fog lamps may have black end bulbs or small metal caps over the end of the bulb.)
 - d. The lens has a piece broken from it or is rotated away from its proper position.
The lens may have one or more cracks provided an off-color light does not project through the crack or cracks.
 - e. Wiring or electrical connections are defective.
 - f. Any fog lamp is mounted above the level of the regular headlamps, or is not mounted firmly.
 - g. Lamps are not wired and aimed according to the following instructions:
 - (1) Fog lamps are general illumination lamps as covered in 19 VAC 30-70-160 C.
They must burn through the tail light circuit even if on a separate switch. If installed on a vehicle with a four-headlamp system or a vehicle equipped with driving lamps, they must be wired into the low beam circuit.
 - (2) Fog lamps must be aimed so that the top edge of the high intensity zone is set at the horizontal centerline and the left edge of the high intensity zone is set at the vertical centerline. (Same as low beam headlights.)
NOTE: Fog lamps must be aimed using the optical headlight aimer.
 - (3) A tolerance of four inches in 25 feet is allowed in both the horizontal and the vertical adjustment.
12. Spot lamps are not required. However, if installed they must operate and be inspected.

INSPECT FOR AND REJECT IF:

- a. Vehicle is equipped with more than two spot lamps.
- b. Lamps are not of an approved type or a lamp has been altered.

- c. The lens in any spot lamp is other than clear.
 - d. The lens has a piece broken from it or is rotated away from its proper position.
The lens may have one or more cracks provided an off-color light does not project through the crack or cracks.
 - e. Wiring or electrical connections are defective.
13. Daytime Running Lamps (DRLs) are not required. However, if installed they must operate and be inspected. DRLs must be installed in pairs.

NOTE: DRLs may or may not be wired into the tail light circuit.

INSPECT FOR AND REJECT IF:

- a. Any lamp, except headlamps, used as DRLs is not marked "DRL."
- b. Fog lamps or parking lamps are used as DRLs.
- c. More than one pair of lamps are used and or designated as DRLs.
- d. A DRL is mounted higher than 34 inches measured to the center of the lamp.
- e. The color is other than white to amber.
- f. DRLs do not deactivate when the headlamps are in any "on" position.

Any DRL optically combined with a turn signal or hazard lamp must deactivate when the turn signal or hazard lamp is activated and then reactivate when the turn signal or hazard lamp deactivates.